

CLAIMS

What is claimed is:

1. A monitor, including a monitor main body displaying an image, and a base member supporting the monitor main body, the monitor comprising:
 - a stand member standing on the base member;
 - a moving member, combined to the stand member to move up and down, that supports the monitor main body with a first force of predetermined magnitude to counterbalance a weight of the monitor main body;
 - a locking part provided in the moving member;
 - a locking hook provided on one of the stand member and the base member to lock to and be released from the locking part of the moving member; and
 - an elastic member to release the locking hook from the locking part when the first force counterbalances the weight of the monitor main body.
2. The monitor according to claim 1, wherein the elastic member comprises:
 - a flat spring provided inside the locking part.
3. The monitor according to claim 2, further comprising:
 - a moving block combined to the moving member; and
 - a locking block combined to at least one of the stand member and the base member, wherein the locking part is provided on the moving block, and the locking hook is provided on the locking block.
4. The monitor according to claim 3, wherein:
 - the locking hook protrudes from the locking block; and
 - the locking part has a locking groove corresponding to the locking hook.
5. The monitor according to claim 4, further comprising:
 - a base bracket provided between the stand member and the base member, wherein the base bracket is combined with the stand member and the base member, and the locking block is combined to the base bracket.
6. The monitor according to claim 5, wherein the locking block comprises:
 - a push button protruding through a first side of the base bracket; and

a combining projection combined in a second side of the base bracket.

7. The monitor according to claim 6, further comprising:
a coil spring provided between the locking block and the second side of the base bracket to elastically bias the locking block toward the first side of the base bracket.

8. The monitor according to claim 7, wherein the coil spring is installed on the combining projection.

9. A monitor including a base member and a monitor main body displaying a picture, the monitor comprising:
a base bracket connected to the base member;
a stand member connected to the base bracket;
a moving member connected to the monitor main body, and movably connected to the stand member to translate along a first direction and a second direction opposite the first direction;
a first forcing member to bias the moving member in the first direction with a first force of predetermined magnitude;
a locking part located on the moving member;
a locking hook located on one of the stand member and the base member to lock to and be released from the locking part of the moving member; and
a second forcing member to bias the locking part in the second direction with a second force of predetermined magnitude that is less than the first force, that releases the locking hook from the locking part when the sum of the second force and a third force acting on the moving member in the second direction, exceeds the first force.

10. The monitor according to claim 9, wherein the first forcing member comprises:
a spring connected to the stand member and the moving member.

11. The monitor according to claim 9, wherein the second forcing member comprises:
a flat spring located inside the locking part.

12. The monitor according to claim 9, further comprising:

a moving block combined to the moving member; and
a locking block combined to one of the stand member and the base member,
wherein the locking part is located in the moving block, and the locking hook is located in the locking block.

13. The monitor according to claim 12, wherein:
the locking hook protrudes from the locking block; and
the locking part has a locking groove corresponding to the locking hook.

14. The monitor according to claim 13, further comprising:
a base bracket provided between the stand member and the base member,
wherein the base bracket is combined with the stand member and the base member,
and the locking block is combined to the base bracket.

15. The monitor according to claim 12, further comprising:
a third forcing member located between the locking block and the second side of the
base bracket to bias the locking block toward the first side of the base bracket.

16. The monitor according to claim 15, wherein the third forcing member comprises:
a coil spring.

17. The monitor according to claim 9, wherein the third force comprises:
a component of a weight of the monitor main body acting in the second direction.

18. A monitor including a base member and a monitor main body displaying a
picture, the monitor comprising:
a stand member connected to the base member;
a moving member connected to the monitor main body, and movably connected to the
stand member to translate along a first direction and a second direction opposite the first
direction;
a first forcing member to bias the moving member in the first direction with a first force of
predetermined magnitude;
a locking part located on the moving member;

a locking hook located on one of the stand member and the base member to lock to and be released from the locking part of the moving member; and

a second forcing member to bias the locking part in the second direction with a second force of predetermined magnitude that is less than the first force,

wherein

when the locking part is located in a first position, and a sum of the second force and a third force acting on the moving member in the second direction is less than the first force, the locking hook locks to the locking part, and

when the sum of the second force and the third force acting on the moving member in the second direction exceeds the first force, the second forcing member releases the locking hook from the locking part.

19. The monitor according to claim 18, wherein the third force comprises:
a component of a weight of the monitor main body acting in the second direction.

20. The monitor according to claim 18, wherein:
the base member comprises a base bracket; and
the stand member is connected to the base bracket.

21. An adjusting mechanism for adjusting a monitor relative to a monitor stand comprising:
a locking mechanism that locks the monitor stand in a minimized position when a line of force of a first forcing member is tilted with respect to a line of force of gravity acting on the monitor stand.

22. The adjusting mechanism according to claim 21, wherein:
the locking mechanism prevents a releasing mechanism from releasing the monitor stand from the minimized position when the line of force of the first forcing member is tilted with respect to the line of force of gravity acting on the monitor stand.

23. An adjusting mechanism for adjusting a monitor relative to a monitor stand comprising:
a locking mechanism that locks the monitor stand in a minimized position when the monitor is separated from the monitor stand.

24. An adjusting mechanism for adjusting a monitor relative to a monitor stand comprising:

a locking mechanism that locks the monitor stand in a minimized position by a first force of a first forcing member when the monitor is separated from the monitor stand.

25. The adjusting mechanism according to claim 24, wherein:

the locking mechanism prevents a releasing mechanism from releasing the monitor stand from the minimized position unless the first force is counterbalanced.